




# Luis Angel Guerrero Hoyos

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## About Me

I am a Sc.M student in the CEE Department at the University of Washington. I hold a Sc.B degree in Geological Engineering from the Universidad Nacional de Colombia, with 5+ years of industry experience. Passionate about geospatial data, GIS, and remote sensing, I excel in both autonomous and team-based learning environments. With outstanding interpersonal, written, and communication skills, I am adaptable to change and committed to continuous improvement. My creative and innovative mindset is focused on problem-solving, particularly within the realms of geospatial analysis, data engineering, geophysics, geotechnical engineering, and risk management.

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## Experience

 University of Washington

### Research Assistant and Scientist

*August 2023 - Present*

- Investigating the geospatial relationships between earthquake-induced landslides and their reactivations.
- Interaction with geospatial data types, both rasters (GeoTIFF and satellite imagery) and vectors (GeoJSON, geopackage, shapefiles).

 Hexagon Geospatial

### Geotechnical Monitoring Analyst

*July 2021 - August 2023*

- InSAR data analysis and management from ground-based georadars.
- Real time geotechnical monitoring of pit slopes and tailing dams using ground-based interferometric radars, robotic total stations and GNSS.
- Technical support to the customer regarding monitoring, equipment, system, and software.
- Daily, weekly, and monthly report instable areas to the customer after the analysis for decision-making.

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### Geological Engineer

*January 2019 - July 2021*

- Management of GIS databases of drilling samples.
- Drilling samples data entry.
- Plan, execute and supervise drilling campaigns.

## **Research Assistant and Scientist**

*August 2017 - March 2018*

- Research assistant for photointerpretation, geotechnical mapping and statistical modelling validation in the project "Hazard basic studies of landslides, debris flows and floods occurrence for land management at Aburrá Valley, Antioquia, Colombia".
  - Propose an early warning system for the flash flows occurrence using the RTI methodology.
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## Education

### **Master of Science in Civil Engineering**

University of Washington

*May 2025*

### **Bachelor of Science in Geological Engineering**

Universidad Nacional de Colombia

*May 2019*

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## Skills

- **Programming Languages:** Python, Matlab
  - **Frameworks & Libraries:** Geopandas, Rasterio, Xarray, Gdal
  - **Tools:** Git, QGIS, ArcGIS, inSAR, Pix4D, CloudCompare,
  - **Databases:** SQL, PowerBI
  - **Soft Skills:** Communication, Leadership, Adaptability, Innovation
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## Awards & Certifications

- CEE Departmental Graduate Fellowship - University of Washington, September 2023
- InSAR and RAR Radar Monitoring - University of Arizona, December 2020

## Languages

- English (Fluent)
- Spanish (Native)